

BACKGROUND

Dengue fever is a mosquito-borne viral disease caused by one of any of four related viruses: Dengue virus 1, 2, 3, and 4. For this reason, a person can be infected with a dengue virus as many as four times in their lifetime. Dengue outbreaks are occurring in many regions of the world including the Americas, Africa, the Middle East, Asia, and the Pacific Islands.

WHO DOES THE ISSUE IMPACT?

Dengue viruses are spread primarily through the bite of an infected *Aedes* species (*Ae. aegypti* and *Ae. albopictus*) mosquito. The mosquitoes that spread dengue are found in most tropical and subtropical regions of the world, including several US territories and states. Anyone spending time in dengue endemic areas should take mosquito-bite prevention measures.

COMPLICATIONS

Severe dengue can be life-threatening within a few hours and often requires care at a hospital.

SIGNS AND SYMPTOMS

As many as one half of all dengue-infected persons are asymptomatic; that is, they have no clinical signs or symptoms of disease. Common symptoms of dengue virus infection include high fever, severe headache, severe pain behind the eyes, joint pain, muscle and bone pain, rash, and mild bleeding (e.g., nose or gums bleed, easy bruising). Dengue virus infection with these symptoms is usually referred to as dengue fever. Generally, younger children and those with their first dengue virus infection have a milder illness than older children and adults.

CAUSES AND TRANSMISSION

Dengue is transmitted to people by the bite of an infected *Aedes* species mosquito. It takes four to seven days after the bite for a person to develop infection with dengue virus. The most important mosquito that transmits dengue virus is *Ae. aegypti* (the yellow fever mosquito), but a similar mosquito called *Ae. albopictus* (Asian tiger mosquito) can also transmit dengue. The mosquito becomes infected with dengue virus when it bites a person who has dengue virus in their blood. The person can either have symptoms of dengue virus infection or they may have no symptoms.

Dengue is usually transmitted to people through the bite of an infected mosquito; however, on rare occasions dengue has been spread through blood transfusions, organ transplants, needle stick injuries, and from mother to child during pregnancy or around the time of birth.

TESTS AND DIAGNOSIS

The symptoms of dengue are similar to those of chikungunya and Zika, diseases spread by the same mosquitoes that transmit dengue. See your health care provider if you develop the symptoms described above and if you have visited an area where dengue is found. If you have recently traveled, tell your health care provider when and where you traveled.

In order to diagnose a dengue virus infection, a health care provider will need to collect a blood sample from the patient and have it tested for evidence of dengue virus infection. The laboratory will run tests on the patient's blood sample to look for antibodies to dengue virus or to detect dengue virus RNA (viral particles).

TREATMENTS

There is no specific medication for treatment of a dengue infection. Persons who think they have dengue should use analgesics (pain relievers) with acetaminophen and avoid those containing aspirin. They should also rest, drink plenty of

fluids and consult a health care provider. If they feel worse (e.g., develop vomiting and severe stomach pain) in the first 24 hours after the fever declines, they should immediately seek care at a hospital emergency department.

WHAT CAN YOU DO?

To prevent Dengue

- Use EPA approved insect repellent
- Wear long-sleeved shirts and long pants to cover your skin
- Treat clothing and gear with an insecticide
- Sleep under a mosquito net
- Take steps to control mosquitoes indoors and outdoors by
 - Using screens on windows and doors and repairing holes
 - Using air conditioning
 - Stopping mosquitoes from laying eggs in or near water, i.e., dumping or draining items that hold water such as tires, buckets, planters, toys, pools, birdbaths, flowerpots, trash containers, etc.

If you or a family member might have Dengue:

- See your healthcare provider if you develop any of the symptoms described for dengue; tell him or her about your travel
- A dengue vaccine is available for use in children aged 9 to 16 years with laboratory-confirmed previous dengue virus infection and living in areas where dengue is endemic

RESOURCES FOR MORE INFORMATION

PA DOH Vectorborne Disease webpage: [Vectorborne Diseases](#)

CDC Dengue website: <https://www.cdc.gov/dengue/index.html>

This fact sheet provides general information. Please contact your physician for specific clinical information.

If you have any questions, contact us at 1-877-PA-HEALTH.

